

Name: \_\_\_\_\_

### p1103: Factoring with box when $a = \text{prime}$ (v8)

#### Example

Use the box to factor  $2x^2 - 9x - 18$ .

Guess and check, based on factor pairs of  $-18$ , until you find the pair that results in a linear coefficient of  $-9$  after combining like terms.

*	x	
		$-6$
$2x$	$2x^2$	$-12x$
$3$	$3x$	$-18$

$2x^2 - 12x + 3x - 18$   
 Combine like terms.  
 $2x^2 - 9x - 18$

ANSWER:  $(2x + 3)(x - 6)$

#### Question 1

Use the box to factor  $7x^2 + 22x + 16$ .

*	x	
$7x$	$7x^2$	
		$16$

ANSWER:

### Question 2

Use the box to factor  $5x^2 + 16x - 16$ .

*	x	
5x	$5x^2$	
		-16

ANSWER:

### Question 3

Use the box to factor  $3x^2 - 28x + 49$ .

*		

ANSWER: